

=> d his

(FILE 'HOME' ENTERED AT 00:56:00 ON 19 MAR 2005)

FILE 'USPATFULL' ENTERED AT 00:56:33 ON 19 MAR 2005

L1	10638 S TYROSINE AND (LIPOIC OR GLUTATHIONE ) AND (DIMETHYLAMINOETHAN
L2	360 S TYROSINE (100A) (LIPOIC OR GLUTATHIONE ) (100A) (DIMETHYLAMIN
L3	174 S L2 AND (TOPICAL OR EXTERNAL)
L4	198 S TYROSINE (50A) (LIPOIC OR GLUTATHIONE ) (50A) (DIMETHYLAMINOE
L5	97 S L4 AND L3
L6	89 S L5 NOT PERRICONE
L7	97 S L5 NOT PERRICONE/AU
L8	10 S L4/CLM AND L5

L8 ANSWER 9 OF 10 USPATFULL on STN

DETD . . . L- aspartic acid, L-cysteine, L-cystine, D-glutamic acid, L-glutamic acid, L-glutamine, glycine, L-histidine, L-homoserine, D,L-β-hydroxy-glutamic acid, L-isoleucine, L-leucine, L-phenylalanine, L-proline, D-**serine**, L-**serine**, L-tryptophan, L-**tyrosine**, **glutathione** (as well as any peptide containing the above amino acids), adenosine, deoxyadenosine, cytosine, cytidine, deoxycytidine, D-glucosamine, D-galactosamine, D-mannosamine, N-acetyl-D-glucosamine, N-acetyl-D-galactosamine, . . .

DETD . . . device comprising: a) a housing; b) a testing region contained within the housing; c) a liquid receiving means on an **external** surface of the housing; d) a liquid flow-directing means providing liquid communication between the testing region and the liquid receiving.

DETD The nitrogen sources tested included ammonium chloride, sodium nitrite, potassium nitrate, urea, **glutathione** (reduced form), alloxan, L-citrulline, putrescine, L-ornithine, agmatine, L-alanine, L-arginine, L-asparagine, L-aspartic acid, L-cysteine, L-glutamic acid, L-glutamine, glycine, L-histidine, L-isoleucine, L-leucine, L-lysine, L-methionine, L-phenylalanine, L-proline, L-**serine**, L-**tyrosine**, L-threonine, L-valine, D-alanine, D-asparagine, D-aspartic acid, D-glutamic acid, D-lysine, D-**serine**, D-valine, N-acetyl-glycine, L-pyroglutamic acid, L-homoserine, met-ala, n-amylamine, n-butylamine, ethylamine, ethanolamine, ethylene diamine, histamine, (R)-(+)-α-phenylethylamine, β-phenylethylamine, tyramine, acetamide, formamide, glucuronamide, lactamide, . . .

DETD . . . no MG1655 growth in wells containing these compounds: negative control (medium without any nitrogen source), sodium nitrite, potassium nitrate, urea, **glutathione** (reduced form), alloxan, L-citrulline, putrescine, L-ornithine, agmatine, L-alanine, L-cysteine, L-histidine, L-isoleucine, L-leucine, L-lysine, L-methionine, L-phenylalanine, L-**serine**, L-**tyrosine**, L-threonine, L-valine, D-asparagine, D-aspartic acid, D-glutamic acid, D-lysine, D-**serine**, D-valine, N-acetyl-glycine, L-pyroglutamic acid, L-homoserine, met-ala, n-amylamine, n-butylamine, ethylamine, ethanolamine, ethylenediamine, histamine, (R)-(+)-α-phenylethylamine, P-phenylethylamine, tyramine, acetamide, formamide, glucuronamide, lactamide, N-acetyl-D-galactosamine, . . .

DETD . . . fructose 6-phosphate, mannose 1-phosphate, mannose 6-phosphate, arabinose 5-phosphate, cytidine 3'-monophosphate, cytidine 5'-monophosphate, cytidine 2':3'-cyclic monophosphate, glucosamine 1-phosphate, glucosamine 6-phosphate, phospho-L-arginine, O-phospho-D-**serine**, O-phospho-L-**serine**, O-phospho-D-**tyrosine**, O-phospho-L-**tyrosine**, uridine 2'-monophosphate, uridine 3'-monophosphate, uridine 5'-monophosphate, uridine 2':3'-cyclic monophosphate, O-phospho-L-threonine, 6-phosphogluconic acid, 2-phosphoglyceric acid, phosphoglycolic acid, thymidine 3'-monophosphate, thymidine 5'-monophosphate, thiosulfate, tetrathionate, thiophosphate, dithiophosphate, L-cysteine, cys-gly, L-cysteic acid, L-cysteine sulphinic acid, cystathionine, lanthionine, **glutathione**, L-methionine, glycyl-DL-methionine, Lmethionine sulfoxide, taurine, N-acetyl-DL-methionine, isethionate, taurocholic acid, hypotaurine, O-acetylene-**serine** with sodium sulfate, L-djenkolic acid. The following compounds resulted in a weak positive test result: 2-aminoethyl phosphonate, S-methyl-L-cysteine. The following.

CLM What is claimed is:

. . . D-aspartic acid, L-aspartic acid, L-cysteine, L-cystine, D-glutamic acid, L-glutamic acid, L-glutamine, glycine, L-histidine, L-homoserine, D,L-β-hydroxy-glutamic acid, L-isoleucine, L-leucine, L-phenylalanine, L-proline, D-**serine**, L-**serine**, L-tryptophan, L-**tyrosine**, **glutathione**, cytosine,

D-glucosamine, D-galactosamine, D-mannosamine, N-acetyl-D-glucosamine, N-acetyl-D-galactosamine, N-acetyl-D-mannosamine, methylamine, ethylamine, butylamine, isobutylamine, amylamine, ethanolamine, ethylenediamine, pentamethylenediamine, hexamethylenetriamine, phenylethylamine, tyramine, piperidine, pyrrole, . . . glucuronamide, formamide, propionamide, methoxylamide, thioacetamide, cyanate, diethylurea, tetraethylurea, biuret, alloxan, alloxantine, allantoin, theobromine, ammonium chloride, sodium nitrite, potassium nitrate, urea, **glutathione** (reduced form), alloxan, L-citrulline, putrescine, L-ornithine, agmatine, L-lysine, L-methionine, L-threonine, L-valine, D-lysine, D-valine, N-acetyl-glycine, L-pyroglutamic acid, histamine, adenosine, deoxyadenosine, cytosine, . . . . acid, L-glutamine, L-glycine, L-histidine, L-isoleucine, guanine, guanosine, 2'-deoxyguanosine, guanosine 3':5'-cyclic monophosphate, guanosine 3'-monophosphate, guanosine 5'-monophosphate, L-leucine, L-lysine, L-methionine, L-phenylalanine, L-proline, L-**serine**, cytosine, cytidine, 2'-deoxycytidine, cytidine 3':5'-cyclic monophosphate, cytidine 3'-monophosphate, cytidine 5'-monophosphate, L-tryptophan, L-**tyrosine**, L-threonine, L-valine, D-alanine, D-aspartic acid, thymine, thymidine, thymidine 3':5'-cyclic monophosphate, thymidine 3'-monophosphate, thymidine 5'-monophosphate, D-glutarnic acid, (5)4-amino-imidazole-4(5)-carboxamide, DL- $\alpha$ , $\epsilon$ -diaminopimelic acid, D-biotin, DL- $\alpha$ -**lipoic** acid, caprylic acid, uracil, uridine, 2'-deoxyuridine, uridine 3':5'-cyclic monophosphate, uridine 3'-monophosphate, uridine 5'-monophosphate, p-amino-benzoic acid, shikimic acid, molybdc acid, folic. . . . D-pantothenic acid, hypoxanthine, inosine, 2'-deoxyinosine, inosine 3':5'-cyclic monophosphate, inosine 3'-monophosphate, inosine 5'-monophosphate, thiamine, riboflavin, pyridoxal, pyridoxine, pyridoxamine, quinolinic acid, reduced **glutathione**, L-homoserine lactone,  $\alpha$ -ketobutyric acid,  $\beta$ -nicotinarnide adenine dinucleotide, nicotinic acid, nicotinamide, N- $\alpha$ -acetyl-L-ornithine, L-ornithine, L-citrulline, putrescine, spermidine, spermine, TWEEN® 20, TWEEN® 40, . . . .

ACCESSION NUMBER: 2002:283155 USPATFULL  
 TITLE: Comparative phenotype analysis  
 INVENTOR(S): Bochner, Barry, Alameda, CA, United States  
 Panomitros, Eugenia, San Francisco, CA, United States  
 PATENT ASSIGNEE(S): Biolog, Inc., Hayward, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6472201	B1	20021029
APPLICATION INFO.:	US 2000-752168		20001229 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-574087, filed on 18 May 2000 Continuation of Ser. No. US 1999-333802, filed on 15 Jun 1999, now abandoned Continuation-in-part of Ser. No. US 1998-98066, filed on 16 Jun 1998, now patented, Pat. No. US 6046021 Continuation-in-part of Ser. No. US 1996-762656, filed on 9 Dec 1996, now patented, Pat. No. US 5882882 Continuation-in-part of Ser. No. US 1995-421377, filed on 12 Apr 1995, now patented, Pat. No. US 5627045, issued on 6 May 1997		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Tate, Christopher R.		
LEGAL REPRESENTATIVE:	Medlen & Carroll, LLP		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	3322		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 1 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:239272 USPATFULL  
TITLE: Treatment of acne using alkonolamine compositions  
INVENTOR(S): Perricone, Nicholas V., Guilford, CT, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004185077	A1	20040923
APPLICATION INFO.:	US 2004-768769	A1	20040130 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2002-85864, filed on 27 Feb 2002, GRANTED, Pat. No. US 6743433 Continuation-in-part of Ser. No. US 2001-900680, filed on 6 Jul 2001, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	ST. ONGE STEWARD JOHNSTON & REENS, LLC, 986 BEDFORD STREET, STAMFORD, CT, 06905-5619		
NUMBER OF CLAIMS:	15		
EXEMPLARY CLAIM:	1		
LINE COUNT:	799		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 2 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:239271 USPATFULL  
TITLE: Treatment of acne using alkonolamine compositions  
INVENTOR(S): Perricone, Nicholas V., Guilford, CT, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004185076	A1	20040923
APPLICATION INFO.:	US 2004-768359	A1	20040130 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2002-85864, filed on 27 Feb 2002, GRANTED, Pat. No. US 6743433 Continuation-in-part of Ser. No. US 2001-900680, filed on 6 Jul 2001, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	ST. ONGE STEWARD JOHNSTON & REENS, LLC, 986 BEDFORD STREET, STAMFORD, CT, 06905-5619		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1		
LINE COUNT:	768		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 3 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:88614 USPATFULL  
TITLE: Defined systems for epithelial cell culture and use thereof  
INVENTOR(S): Judd, David A., Williamsville, NY, UNITED STATES  
Battista, Paul J., Eggertsville, NY, UNITED STATES  
PATENT ASSIGNEE(S): Invitrogen Corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004067584	A1	20040408
APPLICATION INFO.:	US 2003-694189	A1	20031028 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-695926, filed on 26 Oct 2000, GRANTED, Pat. No. US 6692961 Continuation of Ser. No. US 1997-948053, filed on 9 Oct 1997, ABANDONED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-28471P	19961011 (60)

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK  
AVENUE, N.W., WASHINGTON, DC, 20005  
NUMBER OF CLAIMS: 72  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 6 Drawing Page(s)  
LINE COUNT: 1514  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 4 OF 10 USPATFULL on STN  
ACCESSION NUMBER: 2004:41414 USPATFULL  
TITLE: Defined systems for epithelial cell culture and use  
thereof  
INVENTOR(S): Judd, David A., Williamsville, NY, United States  
Battista, Paul J., Eggertsville, NY, United States  
PATENT ASSIGNEE(S): Invitrogen Corporation, Carlsbad, CA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6692961	B1	20040217
APPLICATION INFO.:	US 2000-695926		20001026 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-948053, filed on 9 Oct 1997, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-28471P	19961011 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Witz, Jean C.	
LEGAL REPRESENTATIVE:	Sterne, Kessler, Goldstein & Fox PLLC.	
NUMBER OF CLAIMS:	59	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 6 Drawing Page(s)	
LINE COUNT:	1503	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L8 ANSWER 5 OF 10 USPATFULL on STN  
ACCESSION NUMBER: 2004:38559 USPATFULL  
TITLE: Addition of glycolysis inhibitor to a pathogen  
reduction and storage solution  
INVENTOR(S): Goodrich, Laura, Lakewood, CO, UNITED STATES  
Goodrich, Raymond P., Lakewood, CO, UNITED STATES  
PATENT ASSIGNEE(S): Gambro, Inc., Lakewood, CO, 80215 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004029097	A1	20040212
APPLICATION INFO.:	US 2003-417925	A1	20030416 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2003-355681, filed on 31 Jan 2003, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-373198P	20020416 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	GAMBRO, INC, PATENT DEPARTMENT, 10810 W COLLINS AVE, LAKEWOOD, CO, 80215	
NUMBER OF CLAIMS:	35	
EXEMPLARY CLAIM:	1	

NUMBER OF DRAWINGS: 5 Drawing Page(s)  
LINE COUNT: 794  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 6 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2003:312115 USPATFULL  
TITLE: Addition of glycolysis inhibitor to a pathogen  
reduction and storage solution  
INVENTOR(S): Goodrich, Laura, Lakewood, CO, UNITED STATES  
Goodrich, Raymond P., Lakewood, CO, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003219712	A1	20031127
APPLICATION INFO.:	US 2003-355681	A1	20030131 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-353319P	20020201 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	GAMBRO, INC, PATENT DEPARTMENT, 10810 W COLLINS AVE, LAKEWOOD, CO, 80215	
NUMBER OF CLAIMS:	25	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Page(s)	
LINE COUNT:	768	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 7 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2003:112832 USPATFULL  
TITLE: Nutrient medium for maintaining neural cells in injured  
nervous system  
INVENTOR(S): Brewer, Gregory J., Springfield, IL, UNITED STATES  
PATENT ASSIGNEE(S): Board of Trustees of Southern Illinois University (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003077564	A1	20030424
APPLICATION INFO.:	US 2002-261462	A1	20020930 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-326658P	20011002 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	FITCH EVEN TABIN AND FLANNERY, 120 SOUTH LA SALLE STREET, SUITE 1600, CHICAGO, IL, 60603-3406	
NUMBER OF CLAIMS:	35	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	3 Drawing Page(s)	
LINE COUNT:	1502	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 8 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2003:29912 USPATFULL  
TITLE: Treatment of acne using alkanolamine compositions  
INVENTOR(S): Perricone, Nicholas V., Guilford, CT, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003021855	A1	20030130

US 6743433 B2 20040601  
APPLICATION INFO.: US 2002-85864 A1 20020227 (10)  
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2001-900680, filed  
on 6 Jul 2001, PENDING  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: MARY M. KRINSKY, Ph. D., J.D., PATENT ATTORNEY, 79  
TRUMBULL STREET, NEW HAVEN, CT, 06511  
NUMBER OF CLAIMS: 25  
EXEMPLARY CLAIM: 1  
LINE COUNT: 858  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.



L-isoleucine, L-leucine, L-lysine, L-methionine, L-phenylalanine,  
 L-proline, L-**serine**, L-threonine, L-tryptophan, L-  
**tyrosine**, L-valine, biotin, **choline** chloride,  
 D-Ca.sup.++-pantothenate, folic acid, i-inositol, niacinamide,  
 pyridoxine, riboflavin, thiamine, vitamin B.sub.12, a calcium salt,  
 CUSO.sub.4, FeSO.sub.4, KCl, a magnesium salt, . . .

ACCESSION NUMBER: 2004:88614 USPATFULL  
 TITLE: Defined systems for epithelial cell culture and use  
 thereof  
 INVENTOR(S): Judd, David A., Williamsville, NY, UNITED STATES  
 Battista, Paul J., Eggertsville, NY, UNITED STATES  
 PATENT ASSIGNEE(S): Invitrogen Corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004067584	A1	20040408
APPLICATION INFO.:	US 2003-694189	A1	20031028 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-695926, filed on 26 Oct 2000, GRANTED, Pat. No. US 6692961 Continuation of Ser. No. US 1997-948053, filed on 9 Oct 1997, ABANDONED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-28471P	19961011 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., WASHINGTON, DC, 20005	
NUMBER OF CLAIMS:	72	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Page(s)	
LINE COUNT:	1514	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L8 ANSWER 4 OF 10 USPATFULL on STN

SUMM The epithelium lines the internal and **external** surfaces of the  
 organs and glands of higher organisms. Because of this localization at  
 the **external** interface between the environment and the  
 organism (e.g., the skin) or at the internal interface between an organ  
 and the. . .

SUMM . . . actively divide and ultimately migrate up through the more  
 superficial layers to replace those cells being sloughed off at the  
**external** surface. Accordingly, the skin can be thought of as a  
 dynamic organ comprising keratinocytes that are constantly dividing,  
 maturing and. . .

DETD . . . 5-250 50 50.40  
 L-Isoleucine 1-100 6 6.00  
 L-Leucine 25-250 130 131.20  
 L-Lysine 10-250 55 54.90  
 L-Methionine 5-200 15 13.50  
 L-Phenylalanine 1-150 10 10.03  
 L-Proline 1-250 35 34.60  
 L-**Serine** 5-250 126 126.20  
 L-Threonine 5-100 25 23.80  
 L-Tryptophan 2-100 10 9.30  
 L-**Tyrosine** 5-100 12 11.68  
 L-Valine 5-250 70 70.20  
 Other Components  
 Adenine 1-100 24 24.00  
 Ethanolamine 0.5-5 0.6 0.60  
 D-Glucose 500-5000 1500 1500.00  
 HEPES 1000-5000 3350 3336.20

Hydrocortisone 0.01-5 0.1 0.074  
 Insulin 0.5-25 5 5.00  
**Lipoic Acid** 0.05-10 0.2 0.20  
 Phenol Red 0.5-15 1 1.20  
 Phosphoethanolamine 0.05-5 0.2 0.141  
 Putrescine 0.01-1 0.2 0.20  
 Sodium Pyruvate 10-200 55 55.0  
 Triiodothyronine (T3) 0.001-1 0.01 0.0067  
 Thymidine 0.05-25 0.7 0.73  
 Transferrin 1-50 11 11.11  
 Vitamins  
 Biotin 0.005-1 0.02 0.02  
**Choline Chloride** 1-150 14 14.00  
 D-Ca.sup.++-Pantothenate 0.05-10 0.3 0.30  
 Folic Acid 0.1-10 1 0.80  
 i-Inositol 1-75 18 18.00  
 Niacinamide 0.01-5 0.05 0.04  
 Pyridoxine 0.005-10 0.06 0.06  
 Riboflavin.

CLM What is claimed is:

. . . cell culture medium of claim 1, wherein said medium comprises the ingredients adenine, ethanolamine, D-glucose, N-[2-hydroxyethyl]piperazine-N'-[2-ethanesulfonic acid] (HEPES), hydrocortisone, insulin, **lipoic acid**, phenol red, phosphoethanolamine, putrescine, sodium pyruvate, T3, thymidine, transferrin, L-alanine, L-arginine, L-asparagine, L-aspartic acid, L-cysteine, L-glutamic acid, L-glutamine, glycine, L-histidine, L-isoleucine, L-leucine, L-lysine, L-methionine, L-phenylalanine, L-proline, L-**serine**, L-threonine, L-tryptophan, L-**tyrosine**, L-valine, biotin, **choline chloride**, D-Ca.sup.++-pantothenate, folic acid, i-inositol, niacinamide, pyridoxine, riboflavin, thiamine, vitamin B.sub.12, a calcium salt, CuSO.sub.4, FeSO.sub.4, KCl, a magnesium salt,. . .  
 . . . comprises one or more additional ingredients selected from the group consisting of adenine, ethanolamine, D-glucose, N-[2-hydroxyethyl]-piperazine-N'-[2-ethanesulfonic acid] (HEPES), hydrocortisone, insulin, **lipoic acid**, phenol red, phosphoethanolamine, putrescine, sodium pyruvate, T3, thymidine, transferrin, L-alanine, L-arginine, L-asparagine, L-aspartic acid, L-cysteine, L-glutamic acid, L-glutamine, glycine, L-histidine, L-isoleucine, L-leucine, L-lysine, L-methionine, L-phenylalanine, L-proline, L-**serine**, L-threonine, L-tryptophan, L-**tyrosine**, L-valine, biotin, **choline chloride**, D-Ca.sup.++-pantothenate, folic acid, i-inositol, niacinamide, pyridoxine, riboflavin, thiamine, vitamin B.sub.12, a calcium salt, CuSO.sub.4, FeSO.sub.4, KCl, a magnesium salt,. . .

ACCESSION NUMBER: 2004:41414 USPATFULL  
 TITLE: Defined systems for epithelial cell culture and use thereof  
 INVENTOR(S): Judd, David A., Williamsville, NY, United States  
 Battista, Paul J., Eggertsville, NY, United States  
 PATENT ASSIGNEE(S): Invitrogen Corporation, Carlsbad, CA, United States  
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6692961	B1	20040217
APPLICATION INFO.:	US 2000-695926		20001026 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-948053, filed on 9 Oct 1997, now abandoned		

NUMBER	DATE
-----	-----

PRIORITY INFORMATION: US 1996-28471P 19961011 (60)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: GRANTED  
PRIMARY EXAMINER: Witz, Jean C.  
LEGAL REPRESENTATIVE: Sterne, Kessler, Goldstein & Fox PLLC.  
NUMBER OF CLAIMS: 59  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 6 Drawing Page(s)  
LINE COUNT: 1503  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

NDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 82 OF 83 USPATFULL on STN

DRWD . . . 3 weeks. As the term is used here, "aging" and senescence are distinguished from maturation. Aging is a consequence of **external** events that accumulate over time, and senescence represents an endogenously controlled degenerative program leading to cell death, whereas maturation, as. . .

DETD . . . 0

K CITRATE	0	100
ASCORBIC ACID	0	50
GLUCOSAMINE HCL		
	0	10
TRYPTOPHAN HCL	0	1
L-ASPARAGINE	0	100
GLUTATHIONE	0	10
L-SERINE	0	50
L-THREONINE	0	50
L-TYROSINE	0	50
L-LYSINE	0	10
L-CYSTEINE	0	1

Halides

CoCl.sub.2 -6H.sub.2 O  
0 0.01

CaCl-2H.sub.2 O

110 0 BAP 0.5 0.5

NiCl.sub.2. . .

ACCESSION NUMBER: 96:75311 USPATFULL

TITLE: Taxane production in haploid-derived cell cultures

INVENTOR(S): Durzan, Don J., Davis, CA, United States

Ventimiglia, Frank F., Davis, CA, United States

PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

NUMBER	KIND	DATE
--------	------	------

PATENT INFORMATION:	US 5547866	19960820
---------------------	------------	----------

APPLICATION INFO.:	US 1994-277463	19940720 (8)
--------------------	----------------	--------------

DOCUMENT TYPE:	Utility
----------------	---------

FILE SEGMENT:	Granted
---------------	---------

PRIMARY EXAMINER:	Marx, Irene
-------------------	-------------

LEGAL REPRESENTATIVE:	Townsend and Townsend and Crew
-----------------------	--------------------------------

NUMBER OF CLAIMS:	10
-------------------	----

EXEMPLARY CLAIM:	1
------------------	---

NUMBER OF DRAWINGS:	7 Drawing Figure(s); 3 Drawing Page(s)
---------------------	--

LINE COUNT:	740
-------------	-----

CAS INDEXING IS AVAILABLE FOR THIS PATE

L9 ANSWER 80 OF 83 USPATFULL on STN

AB A preparation for **external** application to the skin which comprises disodium adenosine triphosphate and tranexamic acid for prevention of skin roughening and skin improvement.. . .

SUMM This invention relates to preparations for **external** application to the skin, more particularly **external** preparations having powerful effects of preventing skin roughening and improving the skin. The **external** preparation of the present invention is suitably applied to cosmetics, such as clear lotions, creams, milky lotions, facial packs, and. . .

SUMM One of the major purposes of **external** preparations for the skin such as cosmetics consists in prevention of skin roughening and skin improvement. For this purpose, humectants,. . .

SUMM . . . and cosmetics (see JP-B-47-1479, the term "JP-B" as used herein means an "examined published Japanese patent application"). However, preparations for **external** application containing a large amount of tranexamic acid are sticky and feel unpleasant when applied to the skin. Further, ginseng. . .

SUMM . . . been completed by taking these circumstances into consideration. An object of the present invention is to provide a preparation for **external** application to the skin which produces improved effects on the skin in healing of wounds, prevention of skin roughening, and. . .

SUMM The present invention relates to a preparation for **external** application to the skin which contains disodium adenosine triphosphate and tranexamic acid.

DRWD . . . acid, sorbic acid, alkyl p-hydroxybenzoates (e.g., ethyl p-hydroxybenzoate or butyl p-hydroxybenzoate), and hexachlorophene; amino acids, e.g., glycine, alanine, valine, leucine, **serine**, threonine, phenylalanine, **tyrosine**, aspartic acid, asparagine, glutamine, taurine, arginine, and histigine, and alkali metal salts and a hydrochloride of these amines; organic acids, e.g., acylsarcosine (e.g., sodium lauroylmethylysarcosine), **glutathione**, malic acid and tartaric acid; vitamins such as vitamin A and its derivatives, vitamin B group and its derivatives including. . .

DETD Preparations for **external** application to the skin were prepared according to the formulation shown in Tables 1 and 2 and tested for an. . .

DETD In the following Examples 6 to 13 preparations for **external** application were prepared. All of the preparations exhibited effects of preventing skin roughness and improving the skin conditions without causing. . .

CLM What is claimed is:

1. A preparation for **external** application to the skin which comprises 0.0005 to 3.0% by weight disodium adenosine triphosphate, 0.01 to 3.0% by weight tranexamic. . .
2. The preparation for **external** application to the skin as claimed in claim 1, which is for amelioration of skin roughening.

ACCESSION NUMBER: 97:73295 USPATFULL  
TITLE: Cosmetic composition  
INVENTOR(S): Ogawa, Haruo, Kanagawa, Japan  
Nishiyama, Shoji, Kanagawa, Japan  
Ito, Kenzo, Kanagawa, Japan  
PATENT ASSIGNEE(S): Shiseido Company, Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5658578		19970819
APPLICATION INFO.:	US 1995-505666		19950721 (8)

	NUMBER	DATE
	-----	-----
PRIORITY INFORMATION:	JP 1995-158448	19950601
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Venkat, Jyothsna	
LEGAL REPRESENTATIVE:	Cushman Darby & Cushman Intellectual Property Group of Pillsbury Madison & Sutro, LLP	

ETD . . . the erythritol formulated in the present invention is preferably 0.1 to 30% by weight based on the weight of the **external** skin treatment composition, more preferably 0.5 to 20% by weight. When this amount is less than 0.1% by weight, the . . .

DETD . . . to be formulated in the present invention is preferably 0.0001 to 1% by weight, based on the weight of the **external** skin treatment composition, more preferably 0.0005 to 0.5% by weight. With an amount less than 0.0001% by weight, the quickness. . .

DETD . . . is preferably 0.0001 to 1% by weight, more preferably 0.0005 to 0.5% by weight, based on the weight of the **external** skin treatment composition. When the amount is less than 0.0001% by weight, the quickness of absorption into the skin and. . .

DETD The **external** skin treatment composition of the present invention may include, in addition to the above-mentioned essential components, other ingredients generally used in the other cosmetics, pharmaceuticals, and other **external** skin treatment compositions so long as the desired effects of the present invention are not impaired.

DETD . . . sorbic acid, alkyl esters of p-oxybenzoic acid (ethylparabene, butylparabene, etc.), and hexachlorophene, amino acids such as glycine, alanine, valine, leucine, **serine**, threonine, phenylalanine, **tyrosine**, asparagic acid, asparagine, glutamine, alginine, and hystidine and alkali metal salts thereof and hydrochlorides thereof, organic acids such as acylsarcosinic acid (for example, lauroylcosin sodium), **glutathione**, citric acid, malic acid, tartaric acid, and lactic acid, vitamin B's such as vitamin A and its derivatives, vitamin B.sub.6. . .

DETD The **external** skin treatment compositions of the present invention can include, for example, a preparation such as cosmetics, pharmaceuticals, and quasi-drugs which are applied to the **external** skin and accordingly may take the form of any preparation and a wide variety of types such as an aqueous. . .

DETD As clear from the results of Tables 6 and 7, the **external** skin treatment composition of the present invention is a novel **external** skin treatment composition superior in the effect of improving of skin roughness and absorption into the skin.

DETD The **external** skin treatment compositions of Examples 2 to 5 were those with the effect of preventing skin roughness and improving skin. . .

DETD The **external** skin treatment composition of the present invention is an **external** skin treatment composition which improves skin roughness, is quickly absorbed into the skin, and is superior in the moisturizing effect.

CLM What is claimed is:

. . . claim 1, wherein the content of the erythritol is 0.5 to 20% by weight, based on the weight of the **external** skin treatment composition.

. . . 1, wherein the content of the hydrogenated lecithin is 0.0005 to 0.5% by weight, based on the weight of the **external** skin treatment composition.

. . . which has been modified by a polyoxyethylene polyether is 0.0005 to 0.5% by weight based on the weight of the **external** skin treatment composition.

. . . claim 7, wherein the content of the erythritol is 0.5 to 20% by weight, based on the weight of the **external** skin treatment composition.

. . . 7, wherein the content of the hydrogenated lecithin is 0.0005 to 0.5% by weight, based on the weight of the **external** skin treatment composition.

. . . which has been modified by a polyoxyethylene polyether is 0.0005 to 0.5% by weight based on the weight of the **external** skin treatment composition.

ACCESSION NUMBER: 1998:54497 USPATFULL  
TITLE: **External** skin treatment composition  
INVENTOR(S): Nakamura, Fumiaki, Yokohama, Japan  
Kumano, Yoshimaru, Yokohama, Japan  
Ito, Kenzo, Yokohama, Japan  
PATENT ASSIGNEE(S): Shiseido Company, Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5753242		19980519
APPLICATION INFO.:	US 1996-712293		19960911 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-468504, filed on 6 Jun 1995, now abandoned which is a continuation of Ser. No. US 1994-250143, filed on 27 May 1994, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1994-93500	19940502



L9 ANSWER 77 OF 83 USPATFULL on STN

SUMM The present invention may also be applied to viral inactivation of tissues and organs used for transplantation, and used in **topical** creams or ointments for treatment of skin disorders or for **topical** decontamination. The present invention may also be used in the manufacture of viral vaccines for human or veterinary use, particularly.

DETD TABLE 1

---

Summary of Capture-P Results  
Sensitizer CP-38

Compound	Conc. (mM)	Capture-P
		Test (-/+)
Deoxygenation	--	-
L-Histidine	25	-
L-Cysteine	10	-
L-Tyrosine	25	-
L-Tryptophan	25	-
Ascorbate	10	-
N-Acetyl Cysteine	25	-
Propyl gallate	25	-
Glutathione	25	-
Mercaptopropionylglycine		
	10	-
Dithiothreitol (DTT)		
	5	-
BHT	25	-
BHA	25	-
L-Lysine	10	+
L-Serine	10	+
L-Methionine	10	+
Glucose	100	+
Mannitol	20	+
Trolox	5	+
Serine + Methionine		
	10	+
Glycerol	2%	+

---

ACCESSION NUMBER: 1998:101529 USPATFULL  
TITLE: Method of inactivation of viral and bacterial blood contaminants with quinolines as photosensitizer  
INVENTOR(S): Goodrich, Jr., Raymond P., Pasadena, CA, United States  
Park, Sang Chul, Arcadia, CA, United States  
PATENT ASSIGNEE(S): Baxter International Inc., Deerfield, IL, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5798238		19980825
APPLICATION INFO.:	US 1995-474459		19950607 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-343680, filed on 22 Nov 1994 which is a continuation-in-part of Ser. No. US 1994-311125, filed on 22 Sep 1994, now patented, Pat. No. US 5516629 which is a continuation-in-part of Ser. No. US 1993-165305, filed on 10 Dec 1993, now patented, Pat. No. US 5587490 which is a continuation-in-part of Ser. No. US 1993-47749, filed on 14 Apr 1993 which is a continuation-in-part of Ser. No. US 1991-685931, filed on 16 Apr 1991, now abandoned which is a continuation-in-part of Ser. No. US		

1991-656254, filed on 15 Feb 1991, now abandoned And a continuation-in-part of Ser. No. US 1990-632277, filed on 20 Dec 1990, now abandoned And a continuation-in-part of Ser. No. US 1990-510234, filed on 16 Apr 1990, now abandoned , said Ser. No. US -311125 which is a continuation-in-part of Ser. No. US 1993-91674, filed on 13 Jul 1993, now patented, Pat. No. US 5418130 which is a continuation-in-part of Ser. No. US 1993-47749, filed on 14 Apr 1993

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

PRIMARY EXAMINER:

Weber, Jon P.

LEGAL REPRESENTATIVE:

Swanson & Bratschun, L.L.C., Serewicz, Denise M.,  
Price, Bradford R. L.

L9 ANSWER 71 OF 83 USPATFULL on STN

SUMM Therefore, the present applicant previously proposed, as an **external** skin care composition having the effect of fundamentally improving the water-retaining ability of the horny layer, an **external** skin care composition [Japanese Patent Publication No. 42934/1989 (Japanese Patent Application Laid-Open No. 228048/1987)] comprising an amide derivative represented by.

SUMM Further, the present applicant proposed **external** skin care compositions having the same effects as described above in Japanese Patent Application Laid-Open Nos. 216812/1988, 218609/1988, 222107/1988, 227513/1988,.

SUMM However, the amide derivatives used in these **external** skin care compositions bring about the excellent effects as described above, but have such properties as high melting point, high.

SUMM . . . present invention may further contain various amino acids. Examples of such amino acids include neutral amino acids such as glycine, **serine**, cystine, alanine, threonine, cysteine, valine, phenylalanine, methionine, leucine, **tyrosine**, proline, isoleucine, tryptophan, and hydroxyproline; acidic amino acids such as aspartic acid, asparagine, glutamine and glutamic acid; basic amino acids. . . besides, as betaine and amino acid derivatives, acylsarcosine and salts thereof, acylglutamic acid and salts thereof, acyl- $\beta$ -alanine and salts thereof, **glutathione**, pyrrolidonecarboxylic acid and salts thereof; and oligopeptides such as glutathin, carnosin, gramcidin S, tyrocidine A and tyrocidine B, and guanidine.

DETD . . . in winter were 10 women of 20 to 50 years of age who had-skin roughness on their both cheeks. Different **external** skin-care preparations were applied separately to the left and right cheeks of each volunteer for 2 weeks- On the day.

ACCESSION NUMBER: 2002:34193 USPATFULL

TITLE: Cosmetic composition

INVENTOR(S): Nakajima, Atsushi, Tokyo, JAPAN  
Fukuda, Masataka, Tokyo, JAPAN  
Morita, Takeshi, Tokyo, JAPAN  
Uesaka, Toshio, Tokyo, JAPAN  
Sadahiro, Tomoko, Tokyo, JAPAN

PATENT ASSIGNEE(S): Kao Corporation, Tokyo, JAPAN (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6348200	B1	20020219
	WO 9714401		19970424
APPLICATION INFO.:	US 1997-849250		19970616 (8)
	WO 1996-JP2982		

L9 ANSWER 69 OF 83 USPATFULL on STN

DETD . . . benzoyl peroxide, sulfur resorcinol, ascorbic acid, D-panthenol, hydroquinone, sunscreen agents, anti-inflammatory agents, skin lightening agents, antimicrobial and antifungal agents, estrogens, 2-dimethylaminoethanol, lipoic acid, amino acids such a proline and tyrosine, lactobionic acid, acetyl-coenzyme A, niacin, riboflavin, thiamin, ribose, electron transporters such as NADH and FADH2, botanical extracts such as aloe. . .

DETD . . . or ester thereof in a composition. The compositions (e.g., cosmetic compositions) useful in the subject invention involve formulations suitable for **topical** application to mammalian skin, the formulation comprising (i) a safe and effective amount of carnitine or a cosmetically acceptable salt. . . suspended, (v) optionally, a nutrient, an emollient, humectant (e.g., trehalose), or other cosmetically active agent(s), and (vi) optionally, a cosmetically-acceptable **topical** carrier. The term "cosmetically-acceptable **topical** carrier" refers to a carrier for **topical** use that is capable of having the components of the present invention (e.g., carnitine and pyruvic acid) dispersed or dissolved. . .

DETD The **topical** compositions useful in the present invention may be used for a variety of cosmetic uses, including, but not limited to, . . . aqueous or oil based solutions), emulsions, and gels. In one embodiment, mineral water is used to form the cosmetically acceptable **topical** carrier.

DETD The **topical** compositions useful in the present invention formulated as solutions typically include a cosmetically acceptable water, mineral water, and/or organic carriers. . .

DETD If the **topical** solution useful in the present invention are formulated as an aerosol and applied to the skin as a spray-on, a. . .

DETD If the **topical** compositions useful in the subject invention are formulated as a gel or a cosmetic stick, such compositions can be formulated. . .

DETD . . . antioxidants, preservatives, and chelating agents are listed in pp. 1612-13, 1626, and 1654-55 of the ICI Handbook. In addition, the **topical** compositions useful herein can contain conventional cosmetic adjuvants, such as dyes, opacifiers (e.g., titanium dioxide), pigments, and fragrances.

ACCESSION NUMBER: 2002:81526 USPATFULL

TITLE: Method of promoting skin cell metabolism

INVENTOR(S): Shapiro, Stanley S., Livingston, NJ, United States  
Martin, Katharine M., Ringoes, NJ, United States

PATENT ASSIGNEE(S): Johnson & Johnson Consumer Companies, Inc., Skillman, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6372791	B1	20020416
APPLICATION INFO.:	US 2000-606556		20000629 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Dees, Jose ' G.		
ASSISTANT EXAMINER:	George, Konata		
LEGAL REPRESENTATIVE:	McGowan, William E.		
NUMBER OF CLAIMS:	28		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page		

(FILE 'HOME' ENTERED AT 00:56:00 ON 19 MAR 2005)

FILE 'USPATFULL' ENTERED AT 00:56:33 ON 19 MAR 2005

L1 10638 S TYROSINE AND (LIPOIC OR GLUTATHIONE ) AND (DIMETHYLAMINOETHAN  
L2 360 S TYROSINE (100A) (LIPOIC OR GLUTATHIONE ) (100A) (DIMETHYLAMIN  
L3 174 S L2 AND (TOPICAL OR EXTERNAL)  
L4 198 S TYROSINE (50A) (LIPOIC OR GLUTATHIONE ) (50A) (DIMETHYLAMINOE  
L5 97 S L4 AND L3  
L6 89 S L5 NOT PERRICONE  
L7 97 S L5 NOT PERRICONE/AU  
L8 10 S L4/CLM AND L5  
L9 83 S L6 NOT L8

=> save all temp

ENTER NAME OR (END):l10768359/1

L# LIST L1-L9 HAS BEEN SAVED AS 'L10768359/L'

=>

DETD Methods of the invention involve the **topical** administration of **dimethylaminoethanol** and/or other structurally related alkanolamines, or their biologically equivalent derivatives, to mammalian skin scars for the reduction and inhibition of. . . types of skin trauma. Active alkanolamine active ingredients may be applied alone, or in combination with other ingredients such as **lipoic acid** and/or **tyrosine** to enhance the efficacy of the scar treatment.

DETD However, only effective amounts of alkanolamines are needed to reduce scars, so generally **topical** application is accomplished in association with a carrier, and particularly one in which the alkanolamine active ingredient is soluble per. . . dermatologically acceptable carrier or vehicle (e.g., as a lotion, cream, ointment, soap, stick, or the like) so as to facilitate **topical** application and, in some cases, provide additional therapeutic effects as might be brought about, e.g., by moisturizing of the affected. . . simple solvent or dispersant such as water, it is generally preferred that the carrier comprise a composition more conducive to **topical** application, and particularly one which will form a film or layer on the skin to which it is applied so. . .

DETD Whether they are **topical** compositions directly applied to scar tissue or linaments embedded with alkanolamine active ingredients, some embodiments of this invention contain at. . .

DETD Scar-reducing **topical** compositions of the invention can comprise additional ingredients commonly found in skin care compositions, such as, for example, emollients, skin. . .

DETD Typical compositions of the invention comprise diethylaminoethanol alone; diethylaminoethanol and **lipoic acid**; a combination of diethylaminoethanol, **lipoic acid**, and **tyrosine**; and a combination of diethylaminoethanol, **lipoic acid**, **tyrosine**, and glycolic acid. Embodiments employing the occlusive effects of silicone pads or gel sheets to diminish scars generally employ higher. . . provide maximal efficacy. A preferred embodiment used in a double blind, placebo-controlled study was a composition containing 3% by weight **dimethylaminoethanol**, 5% **tyrosine**, 3% **lipoic acid**, and 7% glycolic acid.

CLM What is claimed is:

. . . method according to claim 19 wherein the linament is embedded with a composition containing from about 0.1% to about 10% **dimethylaminoethanol** and at least one other ingredient selected from the group consisting of from about 0.1% to about 7% by weight **lipoic acid**, from about 0.1% to about 5% by weight **tyrosine**, from about 1% to about 10% by weight of glycolic acid, from about 0.5% to about 15% by weight ascorbyl. . .

ACCESSION NUMBER: 2001:208908 USPATFULL  
 TITLE: **Topical** scar treatments using alkanolamines  
 INVENTOR(S): Perricone, Nicholas V., 27 Coginchauq Ct., Guilford, CT, United States 06437

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6319942	B1	20011120
APPLICATION INFO.:	US 2001-875317		20010606 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Henley, III, Raymond		
LEGAL REPRESENTATIVE:	Krinsky, Mary M.		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
LINE COUNT:	540		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.